

EXHIBIT B

001-096

PIR. 2HCl.H₂O: Ophthalmic Gel (2% free base)
Formulation N113

Formulation with 2/HPMC (K100M-Dow) with 0.003M Acetate Buffer

Formulation N113

Pirenzepine Dihydrochloride Monohydrate
(equivalent to 2.0 / free base)

% w/w
2.52

Sodium Hydroxide, USP
(approx 90mg/g PIR. 2HCl.H₂O)

q.s. pH 5

HPMC (K100M, Premium-Dow), USP

2.0

Benzalkonium Chloride, USP

0.005%

Sodium Acetate Trihydrate, USP

0.04

Sodium Acetate Disodium 2H₂O, USP

0.015

Water for Inj / Purified Water, USP

q.s.

Prepare 100 Gm Batch

Part 1

in a clean 250ml glass beaker

tare: 101.1 gm

Emg. Stir bar: 116.4 gm

add:

WFI (McGaw lot J7H004A)

~ 60 gm

heat to 85°C

add HPMC (K100M-Dow)

2.0 gm

lot KC04012N11

mix for 1-2 min to disperse, transfer to RT stir plate, mix to congealing (~ 3-4 min), transfer to refrigerator.

Part 2: in a clean 100 ml glass beaker add

PIR. 2HCl.H₂O (ACIC / Euticals 003/97)

2.52 gm

Sodium Hydroxide, USP, 1% soln.

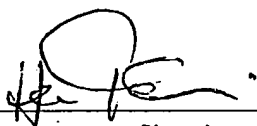
22 ml

from (Spectrum L0038)

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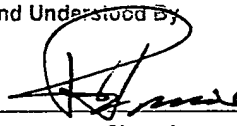
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Read and Understood By



Signed

Date



Signed

Date

001-096 (Cont'd)

Sodium Acetate $\cdot 3H_2O$ (Sigma lot 46H1262 ACS Reagent) 0.04 gm
Benzalkonium chloride (0.5%) 1 mL

Maxx MAQUAT LC 25 50%, lot 7061033

Edetate Disodium $\cdot 2H_2O$, USP 0.015
(Spectrum lot MC0173)

dissolve & measure pH in freshly calibrated pH meter

pH: 4.11

add Sodium Hydroxide 1% to pH 5.0

add 0.1 + 0.1 + 0.2 + 0.1 + 0.1 + 0.1 + 0.05 mL \rightarrow pH 5.01

add Part 2 to Part 1, same beaker and add to Part 1, q.s. to 100 g
mix with spatula.

store overnight in refrigerator.

remove from refrigerator, equilibrate to RT (\approx 3 hours)
mix, measure pH in freshly calibrated pH meter

pH: 5.05

fill in: ophthalmic tubes - Montebello - 3 tubes 4 gm

20 mL glass vial (for 80°C pH study)

402 brown wide mouth bottle - RT

2 tubes to be delivered to Hauger, K

1 tube house-sample - RT

glass vial at 80°C - 5 pm - out
total 66 hours

(38 hours at 80°C \equiv 2 yr RT)

pH in freshly calibrated meter

4.71, 4.74, 4.80, 4.83, 4.84, 4.85, 4.86

no change after 5 min

Conclusion: 0.003 M acetate buffer is excellent. keep vial at RT

Observation: nothing unusual. no additional insoluble particles

Than usual RT gels. Less "line color line" than N114.

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PIRENZEPINE DIHYDROCHLORIDE
OPHTHALMIC GEL
2% w/w (as free base) FORMULA: N113
LOT: NRI 001-096
4 gm
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